Title (en)

FLUID DRIVING SYSTEM

Title (de)

FLUIDANTRIEBSSYSTEM

Title (fr)

SYSTÈME D'ENTRAINEMENT DE FLUIDE

Publication

EP 3611379 A1 20200219 (EN)

Application

EP 19191230 A 20190812

Priority

TW 107128144 A 20180813

Abstract (en)

A fluid driving system includes a vibration unit, a piezoelectric element, a signal transmission layer, a plane unit, and a protrusion. The piezoelectric element includes a first electrode and a second electrode electrically isolated from each other. The signal transmission layer includes a first conductive zone and a second conductive zone. The first electrode of the piezoelectric element is electrically connected to the first conductive zone of the signal transmission layer, and the second electrode of the piezoelectric element is electrically connected to the second conductive zone of the signal transmission layer. The plane unit has at least one hole. The piezoelectric element, the signal transmission layer, and the plane unit are located at one side of the vibration unit. The protrusion is located between the vibration unit and the plane unit, and the protrusion corresponds to and protrudes toward the at least one hole.

IPC 8 full level

F04B 43/04 (2006.01)

CPC (source: CN EP US)

F04B 43/046 (2013.01 - CN EP US); **F04B 45/047** (2013.01 - EP); **H05K 1/0272** (2013.01 - EP); **H05K 1/189** (2013.01 - EP); **H10N 30/2047** (2023.02 - EP US); H05K 2201/10068 (2013.01 - EP); H05K 2201/10083 (2013.01 - EP)

Citation (search report)

- [A] US 2013058809 A1 20130307 - HIRATA ATSUHIKO [JP], et al
- [A] US 2010068080 A1 20100318 - MENG HSIEN-KAI [TW], et al
- [A] JP 2010263061 A 20101118 - MURATA MANUFACTURING CO
- [A] US 2017222123 A1 20170803 - CHEN SHIH-CHANG [TW], et al
- [A] US 2007138914 A1 20070621 - ISHIKAWA JUN [JP], et al

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3611379 A1 20200219; **EP 3611379 B1 20210310**; CN 110821797 A 20200221; CN 110821797 B 20210430; CN 209025826 U 20190625; TW 202009375 A 20200301; TW I692581 B 20200501; US 11549501 B2 20230110; US 2020052187 A1 20200213

DOCDB simple family (application)

EP 19191230 A 20190812; CN 201811201752 A 20181016; CN 201821673190 U 20181016; TW 107128144 A 20180813; US 201916538847 A 20190813